

Fugitive Emissions from Chemical Plants

Table I (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Regulated Component | Pollutant | | | | | | |
|--------------------------------|-----------|--|--|--|--|--|--|
| | | BAAQMD Regulation 8-Organic Compounds, Rule 18-Equipment Leaks. 1/7/98. | | BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94. | | BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refineries and Chemical Plants. 6/15/94. | |
| Leak Definitions: | | Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21". | | Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21". | | Conc. of total organic compounds, including methane, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Ref. Method 21 "Method 21". | |
| Major Gas Leak Definitions: | | >100 ppm (valves, connectors) >500 ppm (pumps & compressors, pressure relief devices) | | > 10,000 ppm | | > 10,000 ppm | |
| Minor Gas Leak Definitions: | | Same as Major | | > 10,000 ppm | | > 10,000 ppm | |
| Major Liquid Leak Definitions: | | Dripping of total organic compounds (TOC) at rate > 3 drops/min. and a conc. of TOC > applicable leak standard (gas leak definitions) | | | | | |

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| Minor Liquid Leak Definitions: | | Same as major | | | | | |
| A. Leak Control Requirements | VOC | | | | | | |
| A1. <u>Gas leaks allowed (<200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components | | N/A | | N/A | | N/A | |

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| | | | | | | | | | | | | |
| A2. <u>Gas leaks allowed (>200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components | | | N/A | | | N/A | | | | N/A | | |
| B. Components ID | VOC | | | Yes | | | Yes | | | Yes | | |
| B1. <u>All components physically identified:</u> | | | | - not specified | | | - not specified | | | - not specified | | |
| B2. <u>Components identified on flow diagrams:</u> | | | | - No | | | - No | | | - No | | |

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| C. Operators Inspection Requirements | | | | | | | |
| <u>C1. Audio-visual insp.</u> | | | - Daily (pumps & compressors). If leak observed, determine VOC concentration. | | - None | | - None specified. |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Accessible components:</u> | | | - Quarterly (valves, pressure relief devices, pumps & compressors) | | - Quarterly (valves) - None specified for flanges | | - Quarterly |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Threaded Connections & Flanges:</u> | | | - <u>For connectors opened during a turnaround</u> , inspect within 90 days after start-up is completed. | | - None specified | | N/A |

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| | | | | | | | |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Inaccessible components:</u> | | - Yearly (valves, pressure relief devices) (Note: PRDs equipped with weephole shall be inspected quarterly at outlet of weephole if horn outlet is inaccessible.) | | - Yearly (valves only) | | - None specified | |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Unsafe to monitor components:</u> | | - Nothing specified | | - Nothing specified | | - Nothing specified | |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - PRV after a pressure relief:</u> | | - 5 working days | | - N/A | | - Nothing specified | |
| <u>C2. Hydrocarbon analyzer Monitoring (Method 21) - Monitoring frequency extended for good performance:</u> | | - Annually (valves) if: 1) leak free for 5 consecutive quarters; 2) approval from APCO. | | - Nothing specified | | - Nothing specified | |

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| <u>C3. Tag all leaks detected.</u> | | | Yes - use brightly colored weatherproof tags showing date of leak detection. | | Yes - tag leaking valves | | Yes - use brightly colored weatherproof tags showing date of leak detection. |
| D. Maintenance Requirements | | | | | | | |
| <u>D1. Non-Essential Components - Repair Gas Leaks Within:</u> | | | <u>Valves, Connectors, Pumps & Compressors:</u> - minimize within 24 hours. - repair within 7 days, 24 hours if discovered by APCO. <u>Pressure Relief Devices:</u> - minimize within 24 hours. - repair within 15 days, 7 days if discovered by APCO. | | - repair within 15 days. | | - repair within 15 days. |

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| | | | | | | | | | |
| <u>D1. Non-Essential Components - Repair Gas Leaks > 50,000 ppmv Within:</u> | | | | <u><i>Leaks > 75,000 ppm:</i></u> - repair within 15 days. | | | | | |
| <u>D1. Non-Essential Components - Repair Major Liquid Leaks Within:</u> | | | - minimize within 24 hours and repair within 7 days. | | | | | | |
| <u>D1. Non-Essential Components - Repair Minor Liquid Leaks Within:</u> | | | - minimize within 24 hours and repair within 7 days. | | | | | | |

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| D2. Essential Components - <u>Minimized Leaks Within:</u> | | <p>- Within 24 hours.</p> <p><u>For Non-Repairable Valves:</u></p> <p>1) repair or replace within 5 years or at next scheduled turnaround, whichever first.</p> <p>2) number awaiting repair not to exceed: 0.5% (valves) or 1% (pressure relief devices, pumps & compressors) of total number of non-repairable equipment allowed or 1 piece of equipment.</p> <p><u>Alternative to 2):</u></p> <p>- measure for mass emissions within 7 days after leak discovered. Mass emission measurement must be less than: 0.1 lb/day (valves), 0.2 lb/day (PRDs, P & C).</p> <p>- facility total number awaiting repair not to exceed: 1% (valves), 5% (PRDs, P & C)</p> <p>- If any component measurement is > 15 lb/day TOC, repair within 7 days.</p> <p>(Note: This implies that</p> | <p>- minimize within 15 days.</p> <p>- if still exceeded 10,000 ppm, repair at next scheduled turnaround but not longer than 6 months.</p> | <p>- minimize within 15 days and repair at next scheduled turnaround.</p> | | |

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| | | | anything between 15 lb/day and the mass emission standards above must use method 2).) | | | | |
| <u>D2. Chronic Leakers:</u> | | | | | | | |
| <u>D2. OEL and V Located at End of Lines:</u> | | | | | | | |
| <u>D2. Hatches:</u> | | | | | | | |
| <u>D3. Components inspected after repair or replacement with Method 21:</u> | | | - Within 24 hours | | - Within 3 months for valves. Nothing specified for flanges. | | - None specified. |
| <u>D4. Operator management plan:</u> | | | N/A | | N/A | | N/A |

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| | | Performance Standard | | | | | | | | |
| Leak Definitions: | | | Conc. of total <u>gaseous</u> hydrocarbons, including methane, measured above background, expressed as methane and measured at interface of leak source; EPA Reference Method 21 "Method 21". | | Conc. of <u>gaseous</u> volatile organic compound, measured above background, expressed as methane and measured 1 cm or less from leak source; EPA Reference Method 21 "Method 21". | | | | | |
| Major Gas Leak Definitions: | | | > 10,000 ppmv | | >10,000 ppmv (except PRD) | | | | | |
| Minor Gas Leak Definitions: | | | >1,000 ppmv but ≤10,000 ppmv | | >1,000 ppmv but ≤10,000 ppmv (except PRD) | | | | | |
| Pressure Relief Device Gas Leak Definitions: | | | | | >200 ppm | | | | | |

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| | | Performance Standard | | | | | | | | | |
| Major Liquid Leak Definitions: | | | visible mist or continuous flow of liquid. | | dripping of liquid volatile organic compounds at rate of more than 3 drops per minute. | | | | | | |
| Minor Liquid Leak Definitions: | | | Not a major leak and drips liquid at a rate of more than 3 drops per minute. | | dripping of liquid volatile organic compounds at rate of more than 3 drops per minute. | | | | | | |

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| | | Performance Standard | | | | | | | | |
| A. Leak Control Requirements | VOC | | | | - Any liquid leak or gas leak > 50,000 ppm detected by District inspection constitute a violation. - Any major gas leak detected by District inspection, within any continuous 24-hour period, and numbering in excess of number of leaks allowed, constitute a violation. | | | | | |

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| | | Performance Standard | | | | | | | | | |
| A1. <u>Gas leaks allowed (<200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components | | N/A | | | 1 2 1 1 | | | | | | |
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| | | Performance Standard | | | | | | | | | |
| A2. <u>Gas leaks allowed (>200 components):</u> - Valves (V) - Pumps seals (P) - Compressors seals (Cp) - Pressure Relief Valves (PRV) - Hatches - Open ended lines (OEL) - Other components | | N/A | | 0.5% of # inspected. 1% of # inspected. 1 1 | | | | | | | |
| | | | | 1 | | | | | | | |
| B. Components ID | VOC | | | | | | | | | | |

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| | | Performance Standard | | | | | | | | | |
| <u>B1. All components physically identified:</u> | | | - major, critical | | - major components | | | | | | |
| <u>B2. Components identified on flow diagrams:</u> | | | - major, critical, & inaccessible except C & F. | | - minor components | | | | | | |
| C. Operators Inspection Requirements | | | | | | | | | | | |

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| | | Performance Standard | | | | | | | |
| C1. Audio-visual insp. (RACT defn. of leak: any liquid leak, a visible or audible leak, the presence of bubbles using soap solns., or a leak identified by use of a vapor analyzer.) (Note: If vapor leak identified, measured leak according to Method 21.) | | - Every 8 hrs (P, Cp, PRV) - Daily (P, Cp, PRV, & PRSB at manned oil & gas production fields and pipeline transfer stations) - Weekly (unmanned facilities) | | - Every 8 hrs (accessible P, Cp, PRV except for unmanned oil & gas production fields and unmanned pipeline transfer stations) | | | | | |

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| | | Performance Standard | | | | | | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - Accessible components: | | | - Quarterly except Threaded Connections & Flanges | | - Quarterly | | - Monthly | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - Threaded Connections & Flanges: | | | - Immediately after being installed and semi-annually thereafter | | | | - New, replaced or repaired fittings, including flanges & threaded connections shall be monitored immediately after being placed into service or w/in 30 days if necessary due to instrumentation design. | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - Inaccessible components: | | | - Yearly | | - Yearly | | | | | | |

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| | | Performance Standard | | | | | | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - unsafe to monitor components: | | | - Inspection plan approved by EO | | | | | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - PRV after a pressure relief: | | | - W/in 3 days | | - W/in 14 days | | | | | | |

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| | | Performance Standard | | | | | | |
| C2. Hydrocarbon analyzer Monitoring (Method 21) - Monitoring frequency extended for good performance: | | - Yearly (all components except P, Cp, PRV, & PRSB at facility if <u>no liquid leaks and no major gas leaks > 0.5%</u> of total components inspected per inspection period for 12 consecutive months.) (Note: Leaks from PRSBs are not included in total count of leaking components in the 0.5% determination.) | - Yearly (all components except P, Cp at facility if <u>no liquid leaks and no major gas leaks > 0.5%</u> of total components inspected per inspection period for 5 consecutive quarters) | - Quarterly (except flanges & threaded connections - yearly) if no major gas leak or any major liquid leak for 3 consecutive monthly inspections. | | | | |

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| | | Performance Standard | | | | | | | | | |
| <u>C3. Tag all leaks detected.</u> | | | Yes - use brightly colored weatherproof tags showing date of leak detection, tag not to be removed until component is repaired and reinspected. | | - None specified | | | | | | |
| D. Maintenance Requirements | | | | | | | | | | | |
| <u>D1. Non-essential Components - Repair Gas Leaks within:</u> | | | - 14 days (minor) - 5 days (major) | | - 14 days (minor) - 5 days (major) | | | | | | |

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| | | Performance Standard | | | | | | | |
| <u>D1. Non-essential Components - Repair Gas Leaks > 50,000 ppmv within:</u> | | - 1 day** (onshore) - 2 days (o/g production or pipeline transfer stations) - 5 days (offshore) (**Note: unless prohibited by Cal OSHA standards or 29 CFR 1910) | | - 1 day | | | | | |

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| | | Performance Standard | | | | | | | |
| <u>D1. Non-essential Components - Repair Major Liquid Leaks Within:</u> | | - 1 day** (onshore) - 2 days (o/g production or pipeline transfer stations) - 5 days (offshore) (**Note: unless prohibited by Cal OSHA standards or 29 CFR 1910) | - 1 day | | | | | | |
| <u>D1. Non-essential Components - Repair Minor Liquid Leaks Within:</u> | | - 2 days** (onshore) - 5 days (offshore) (**Note: unless prohibited by Cal OSHA standards or 29 CFR 1910) | - 1 day | | | | | | |

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| | | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | VCAPCD Rule 74.7. Fugitive Emissions of Reactive Organic Compounds (ROC) at Petroleum Refineries & Chemical Plants. 10/10/95. (Similar to RACT except as noted) | | | | | |
| | | Performance Standard | | | | | | | |
| D2. Essential Components - Minimized Leaks within: | | - Immediately - Critical & unsafe to monitor components: minimized immediately and replaced w/ BACT during shutdown or w/in 12 months, whichever occurs first. | - not specified | | | | | | |

Table I (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Regulated Component | Pollutant | Rule/Measure/Date | | | | | | | |
|----------------------|-----------|---|---|--|--|---|--|--|--|
| | | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | VCAPCD Rule 74.7. Fugitive Emissions of Reactive Organic Compounds (ROC) at Petroleum Refineries & Chemical Plants. 10/10/95. (Similar to RACT except as noted) | | | |
| | | Performance Standard | | | | | | | |
| D2. Chronic Leakers: | | - <u>Components with 5 repair actions for major gas or liquid leak within 12 months</u> ; replaced with BACT. | - <u>Components with 5 repair actions for a liquid leak or a major gas leak within a continuous 12 months period</u> ; replaced with BACT or BART, or vent to an approvable air pollution control device. | | | | | | |

Table I (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Regulated Component | Pollutant | Rule/Measure/Date | | | | | | | |
|--|-----------|---|--|---|--|--|--|--|--|
| | | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | VCAPCD Rule 74.7. Fugitive Emissions of Reactive Organic Compounds (ROC) at Petroleum Refineries & Chemical Plants. 10/10/95. (Similar to RACT except as noted) | | | | | |
| | | Performance Standard | | | | | | | |
| D2. OEL and V Located at End of Lines: | | - Sealed with a blind flange, plug, cap, or a second closed valve except during operations. (Note: Operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs.) | | | | | | | |

Table I (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Regulated Component | Pollutant | Rule/Measure/Date | | | | | | | | | |
|--|-----------|---|---|--|------------------|---|--|--|--|--|--|
| | | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | VCAPCD Rule 74.7. Fugitive Emissions of Reactive Organic Compounds (ROC) at Petroleum Refineries & Chemical Plants. 10/10/95. (Similar to RACT except as noted) | | | | | |
| | | Performance Standard | | | | | | | | | |
| D2. Hatches: | | | - Keep closed except during sampling, adding process matl., or attended maintenance operations. | | | | | | | | |
| D3. Components inspected after repair or replacement with Method 21: | | | - Within 30 days | | - Within 30 days | | | | | | |
| D4. Operator management plan: | | | N/A | | N/A | | | | | | |
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Table II (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | | | | |
|--------------|--|---|--|--|
| | BAAQMD Regulation 8-Organic Compounds, Rule 18-Equipment Leaks. 1/7/98. | BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94. | BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refinery and Chemical Plants, Bulk Plants and Bulk Terminals. 6/1/94 | |
| Exemptions | <u>Visual Inspection Exemption:</u> - not apply to days when facility not staffed. <u>Inspection, Identification Exemption:</u> - equipment handling organic liquids having initial boiling point > 150 °C (302 °F) | | <u>Leak/Repair Standards Exemption:</u> - any pressure relief valve on storage tanks. - the static upstream pressure exceeds the setpoint of the pressure relief valve. | |
| | <u>Inspection, Identification and Record Keeping Exemption:</u> - research and development plants which produce only non-commercial products solely for research and dev. purposes. - equipment in vacuum service. | | <u>Leak/Repair Standards and Inspection Exemption:</u> - emissions from the pressure relief valve is vented to a vapor recovery or disposal system that is at least 95% efficient. - the pressure relief valve is protected by a rupture disk. | |
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Table II (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | | | | |
|--------------|---|--|--|--|
| | BAAQMD Regulation 8-Organic Compounds, Rule 18-Equipment Leaks. 1/7/98. | BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94. | BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refinery and Chemical Plants, Bulk Plants and Bulk Terminals. 6/1/94 | |
| | <p><u>Rule Exemption:</u></p> <ul style="list-style-type: none"> - Controlled seal systems and pressure relief devices vented to vapor recovery or disposal system which reduces emissions of organic compounds from the equipment by 95% or greater (exemption from rule except for provision on the determination of control efficiency). - Small facilities-facilities which have less than 100 valves or less than 10 pumps and compressors (these facilities are subjects to Regulation 8-22). - Bulk plant and terminal loading racks-connections at the interface between loading rack and the vehicle being loaded. - Storage tanks-appurtenances on storage tanks including pressure relief devices, which are subject to Regulation 8, Rule 5 Storage of Organic Liquids. | <p><u>Rule Exemption:</u></p> <ul style="list-style-type: none"> - Low vapor pressure-valves or flanges which handle only organic liquids with a vapor pressure less than 2.6 mmHg (0.05 psia) at 20 oC (68 oF) or exhibit a 10% evaporation point > 150 oC (302 oF) when using ASTM D-86. - Natural gas-valves or flanges handling only commercial natural gas. - Research and development facilities which produce only non-commercial products for research and dev. purposes. - Large facility-valves or flanges in chemical plants having 100 or more valves, which are subject to Reg. 8, Rule 18-Valves and connectors at Petroleum Refineries, Chemical Plants, Bulk Plants and Bulk Terminals. | <p><u>Rule Exemption:</u></p> <ul style="list-style-type: none"> - pressure relief valves handling only organic liquids with a vapor pressure less than 2.6 mmHg (0.05 psia) at 20 oC (68 oF) or exhibit a 10% evaporation point greater than 150 oC (302 oF) according to appropriate test method. - research or development facilities which produce only non-commercial products for research and development purposes. | |

Table II (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | | | | |
|---------------|---|---|---|--|
| | BAAQMD Regulation 8-Organic Compounds, Rule 18-Equipment Leaks. 1/7/98. | BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94. | BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refinery and Chemical Plants, Bulk Plants and Bulk Terminals. 6/1/94 | |
| Applicability | Leaking equipment at petroleum refineries, chemical plants, bulk plants and bulk terminals including but not limited to: valves, connectors, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, fittings, sampling ports, meters, pipes & vessels. | Valves and flanges at chemical plants that has less than 100 valves. | Pressure relief valves on any equipment handling organic compounds at petroleum refineries and chemical plants. | |
| Comments | <u>Note:</u> Rule 18 - Valves and Connectors at Petroleum Refinery complexes, chemical Plants, Bulk Plants and Bulk Terminals and Rule 25 - Pump and Compressor Seals at Petroleum Refinery, Chemical Plants, Bulk Plants and Bulk Terminals has been consolidated and renamed: Rule 18 - Equipment Leaks, 1/7/98. | | | |

Table II (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | | | | |
|--------------|--|--|---|--|
| | BAAQMD Regulation 8-Organic Compounds, Rule 18-Equipment Leaks. 1/7/98. | BAAQMD Regulation 8-Organic Compounds, Rule 22-Valves and flanges at Chemical Plants. 6/1/94. | BAAQMD Regulation 8-Organic Compounds, Rule 28-Pressure Relief Valves at Petroleum Refinery and Chemical Plants, Bulk Plants and Bulk Terminals. 6/1/94 | |
| | <u>Definition:</u> - Petroleum Refinery: Any facility that processes petroleum products as defined in Standard Industrial classification Manual as Industry No. 2911, Petroleum Refining. - Chemical Plants: | <u>Definition:</u> - Chemical Plants: Any facility engaged in producing organic or inorganic and/or manufacturing products by chemical processes. Any facility or operation that has 28 as first digits in their Standard Industrial Classification (SIC) Code as det. from the SIC Manual. May include, but not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining. | <u>Definition:</u> - Chemical Plant: - Rupture Disc: The thin metal diaphragm held between flanges. - Background: - Inaccessible Pressure Relief Valve: | |

Table II (1 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | | | | |
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| | | <u>Definition con't:</u> - Inaccessible: not in an accessible location as defined by Title 8, Section 33207, General Industrial Safety Orders of CAL OSHA 1986. - Small Chemical Plant: any plant that has less than 100 valves. | | |
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Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|---|--|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| Exemptions | <u>Visual Inspection Exemption:</u> - PRV, P & Cp equipped with closed-vent system capable of capturing and transporting any leak to vapor control system. | | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|---|--|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| | <u>Inspection Exemption:</u> - Components exclusively handling commercial natural gas. - Components buried below ground. - Components, except those at gas processing plants, exclusively handling fluids with a VOC concentration of 10% by wt. or less, as determined by appropriate test methods; or components exclusively handling liquid, if the wt% evaporated is 10% or less at 150 °C (302 °F), as determined by appropriate test methods. - **Components at oil and gas production facilities, or pipeline transfer stations, handling liquid of less than or equal to 20° API gravity after point of primary separation. | | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|--|--|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| | <u>Inspection Exemption con't.:</u> - **Components at oil and gas production facilities, or pipeline transfer stations, handling liquid between 20 and 30° API gravity which are located either: 1)downstream of a wellhead equipped with a casing vapor recovery system, provided that the vapor recovery is at a pressure of less than 10 psig; or 2)after the point of primary separation of oil and gas, provided the separation vessel is equipped with a vapor recovery system and is operated at a pressure less than 25 psig. | | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|---|--|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| | <u>Inspection Exemption con't.:</u> (**Note: (1)Components located at <u>offshore oil platforms</u> shall be visually inspected on a quarterly basis. If leak detected, measure according to Method 21. Quarterly visual inspection may be changed to annual, except P, Cp, PRV, & PRSB, if no liquid leaks and no major gas leaks > 0.5% of total components inspected per inspection period for 12 consecutive months. Leaks from PRSB not included in total count of leaking components. (2)Components located at <u>onshore facilities</u> shall either be subject to (1) or that any leak, from components not subject to an inspection program that are detected by the District, may constitute a violation.) | | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|---------------|---|---|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| | <u>Rule Exemption:</u> - one-half inch and smaller fittings which have been demonstrated to the APCO to be leak-free based on an initial inspection in accordance with Method 21. | <u>Rule Exemption:</u> | | | |
| Applicability | Components including but not limited to valves (V), flanges (F), fittings (C), pumps (P), compressors (Cp), pressure relief devices (PRV), diaphragms, hatches, sight-glasses, and meters at refineries, chemical plants, oil & gas processing plants including offshore platforms, and pipeline transfer stations. | Valves, fittings, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, and meters at refineries, chemical plants, oil and gas production fields, natural gas processing plants, and pipeline transfer stations. | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|---|--|--|--|--|
| | RACT Determination of Fugitive Emissions of VOCs from Oil and Gas Production and Processing Facilities, Refineries, Chemical Plants, and Pipeline Transfer Stations. 12/8/93. | SCAQMD Rule 1173. Fugitive Emissions of Volatile Organic Compounds. 5/13/94. | | | |
| Comments | <u>Comp. classifications:</u> - Major: ≥ 4 " V, ≥ 5 -hp P, any Cp, and ≥ 4 " PRV. - Minor: not a major. - Critical: require unit shutdown if component taken out of service. - Inaccessible: $>15'$ above ground when access required from ground; $>6'$ away from platform when access required from platform. - Unsafe: as defined by OSHA standards or in provisions for worker safety found in 29 CFR 1910. | | | | |

Table II (2 of 2)
Identification of Performance Standards
Source Category: Fugitive Emissions from Chemical Plants

| Rule/Measure | Rule/Measure | | | | |
|--------------|---|--|--|--|--|
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| | <u>Definitions:</u> - Unmanned Facility: remote facility which has no permanent sited personnel and is greater than 5 miles from the closest manned facility. | | | | |